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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/197,012 11/20/98 ROITMAN

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EXAMINER

MM91/0605

GUHARAY, K

ART UNIT

PAPER NUMBER

IP ADMINISTRATION
LEGAL DEPARTMENT 20BN
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2879

DATE MAILED:

06/05/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/197,012

Applicant(s)

ROITMAN ET AL.

Examiner

Karabi Guharay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Jones (US 5920080).

Regarding claim 1, Jones discloses an organic light emitting device (10 of Fig 4) comprising an electrode (251, 202 of Fig 3, lines 14-15 of column 9, lines 39-41 of column 8) a current self-limiting structure (253 and 203 of Fig 4, lines 43-44 of column 8, and 19-20 of column 9), and an organic stack (300 of Fig 5, lines 10-12 of column 9) between the electrode (251) and the current limiting structure (203, See Fig 4). Though Jones does not explicitly disclose that the layers 253 and 203 are current self-limiting structure, it is inherent since layers are made current self-limiting material.

Regarding claim 2, Jones discloses that the current self-limiting structure (253 of Fig 3) resides in contact with the electrode (251 of Fig 3).

Regarding claim 3, Jones discloses that the current self-limiting structure (253 and 203 of Fig 4) applied as a patterned lattice structure over the electrode (lines 21-22 of column 7, see Fig 8).

Regarding claim 4, Jones discloses that the current self-limiting structure (203) is applied as a grid defining windows in which the electrode (202 of Fig 4) is applied.

Regarding claim 5, though Jones does not specifically mention that the current self-limiting structure (253 and 203 of Fig 4) comprises an anisotropically conductive material, it is inherent since Jones used barium titanate as the current limiting component which is an anisotropically conductive material (see US 5414403).

Regarding claim 6, Jones discloses a photoresist material in contact with the electrode (202 of fig 4) and the current self-limiting structure (203 of Fig 4, see lines 51-54 of column 8).

Regarding claim 7, Jones discloses that the current self-limiting structure (203 of Fig 4) resides between the electrode (202 of Fig 4) and a conducting layer (not shown in Fig, see lines 56-59 of column 8).

Regarding claim 8 Jones discloses that the conducting layer is embedded within the current self-limiting structure (203 of Fig 4, see lines 56-59 of column 8).

Regarding claim 9, Jones discloses that the conducting layer resides over the current self-limiting structure (lines 56-59 of column 8).

Claim 10 recites essentially the same limitation of claim 1. Thus claim 10 is rejected as claim 1 (see rejection of claim 1). In this case, Jones does not explicitly specify that the organic light emitting has increased the reliability. But it is inherent since Jones uses current self-limiting component in the device.

Claim 11 recites essentially the same limitation of claim 2. Thus claim 11 is rejected as claim 2 (see rejection of claim 2).

Claim 12 recites essentially the same limitation of claim 3. Thus claim 12 is rejected as claim 3 (see rejection of claim 3).

Claim 13 recites essentially the same limitation of claim 4. Thus claim 13 is rejected as claim 4 (see rejection of claim 4).

Claim 14 recites essentially the same limitation of claim 5. Thus claim 14 is rejected as claim 5 (see rejection of claim 3).

Response to Arguments

Applicant's arguments filed 3/26/01 have been fully considered but they are not persuasive.

In response to applicant's argument that the dielectric layer 203 of Jones' organic light emitting device is not described anywhere as "a current self-limiting structure", it is the examiner's position that if the prior art layer has same structure as the claimed layer, both will have same characteristics and same function, because form follows function.

Examiner respectfully points out that Jones teaches that the dielectric layer 203 is made of barium titanate (lines 43-44 of column 8).

Applicant admits that barium titanate is a current self-limiting material (see lines 4-6 of page 6 of the specification). Consequently, barium titanate layer 203 and 253 (being of same material) in Jones' device is a current self-limiting structure.

Thus Jones indeed discloses a current self-limiting structure as applicant's claimed invention.

Regarding claim 3 and 4, examiner would like to point out that Jones clearly shows arrays of OLEDs (10) arranged in matrix (Fig 8, line 46 of column 7) together with matrix lines 801 or 802 carrying current or voltage pulses. Each OLED are

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arranged in lattice structure, consequently the current limiting structure is applied as a patterned lattice structure over the electrode.

Regarding claim 5, examiner once again points out that though Jones does not explicitly mentioned that the layer 203 and 253 are current self-limiting structure, it is inherent since layer 203 is made of a current self-limiting material as disclosed by applicant.

Regarding claim 6, Jones discloses that conductor 202 having slopes is achieved through resist loss, which inherently teaches a resist layer in contact with electrode and layer 203.

As long as evidence of record establish inherency, failure of those skilled in the art to contemporaneously recognize an inherent property, function or ingredient of a prior art reference does not preclude a finding of anticipation (see MPEP 2131.01 (III)).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is (703) 305-1971. The examiner can normally be reached on Monday-Friday 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (703) 305-4794. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

K. G.

Karabi Guharay
Patent Examiner
Art Unit 2879



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